

## WHAT IS CLAIMED IS:

1. An isolated antibody which selectively binds a  
5 mammalian polypeptide, said polypeptide characterized  
by:
- a) binds with selectively to DCGM4 monoclonal  
antibody;
  - b) natural form of said polypeptide has a molecular  
10 weight by SDS PAGE of ~40 kD; and
  - c) expressed on the cell surface of Langerhans  
cells.
2. The antibody of claim 1 which is a monoclonal  
15 antibody.
3. A hybridoma that produces a monoclonal antibody of  
claim 2.
- 20 4. The hybridoma of claim 3, which has ATCC Accession  
No. HB-12576.
5. A method for analyzing a cell population, comprising  
detecting or measuring the presence of Langerin with said  
25 antibody of claim 1.
6. A substantially pure mammalian protein characterized  
by:
- a) a molecular weight by SDS PAGE of approximately  
30 40 kDa with natural glycosylation; and
  - b) binds selectively to said antibody of claim 1.
7. A protein having an amino acid sequence shown in SEQ  
ID NO: 2.
- 35 8. A protein having an amino acid sequence shown in SEQ  
ID NO: 11.
9. A fragment of the protein of claim 7, which:

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- a) expresses an immunological epitope of said Langerin; or
- b) modulates an immune response.

5 10. A nucleic acid sequence which encodes a protein shown in SEQ ID NO: 2.

*Sub B1*  
10 11. The nucleic acid sequence of claim 10 comprising the coding region shown in SEQ ID NO: 1.

12. A nucleic acid sequence which encodes a protein shown in SEQ ID NO: 11.

15 13. The nucleic acid sequence of claim 12 comprising the coding region shown in SEQ ID NO: 10.

*Sub B2*  
14. A nucleic acid sequence shown in SEQ ID NO: 3 or a fragment thereof.

20 15. A nucleic acid sequence comprising any one of SEQ ID NOS: 4-9.

*Add B3*

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